

a ventilating and air conditioning system is operated, but there is a configuration of the ventilating and air conditioning system in which smoke is evacuated from the building. However, in the smoke-evacuating configuration, which is illustrated in Fig. 2 and described in columns 21 and 22, there is no make-up air shaft that communicates through the upper boundary with air outside the space, as is called for by claim 7. Specifically, Munk et al. describes in lines 24-31 in column 22 that branch supply dampers 28 are fully closed to virtually prevent the supply of any air to the space through the supply register 26.

Claim 7 also calls for the at least one make-up air shaft to extend downward from the upper boundary to below the smoke. As is stated in lines 2-4 on page 4 of the present application, a stable smoke layer is formed when the air mass removal rate, such as by ventilators, is equal to the air mass entrainment rate by the fire plume. Those having ordinary skill, such as fire protection engineers, are able to determine the thickness of the stable smoke layer under various conditions without undue experimentation and to size the make-up air shaft to extend below it.

Munk et al. does not disclose a make-up air shaft that extends downward from the upper boundary of the space to below the smoke. There is no disclosure whatever in Munk et al. of a relationship between smoke in a space and the downward extension of a shaft. More specifically, there is no description of a shaft extending downward to below smoke in a space. The supply register 26 of Munk et al. is shown only schematically, for example, in Fig. 2, and supply registers do not extend to below smoke, and would not be expected to extend to below smoke. Only the present application would place in possession of the public an awareness of the relationship between the smoke and the extension of a make-up air shaft.

In maintaining the rejection of claims 7-14 under 35 USC 102 as being anticipated by the

patent to Munk et al., the Examiner refers to the purge register in a plenum near the ceiling of the Munk et al. structure. It appears that the gist of his comment is that Munk et al. really does disclose the at least one opening through the upper boundary and the at least one air make-up shaft communicating through the upper boundary that are required by claim 7, but precisely how the Examiner believes Munk et al. satisfies all of the limitations of claim 7 is not clear to the applicant. In case the Examiner considers the plenum of Munk et al. to be an upper boundary of the space, the applicant points out his belief that the ceiling of the space above the plenum is an upper boundary of the space, but that the plenum is not an upper boundary.

Reconsideration of the rejection of claim 15 under 35 USC 102 as being anticipated by Pardoel et al. is respectfully requested. It is submitted that the proposition that the claim is met because the structure of Pardoel et al. is capable of performing the process is wrong as a matter of law. Since claim 15 calls for a method, the method, not merely a structure that might be used to perform the method, must be disclosed in the reference. The Supreme Court ruled on this in 1902 in *Carnegie Steel Co. v. Cambria Iron Co.*, 185 U.S. 403, 46 L. Ed. 968, 22 S. Ct. 698, in which it held that a process patent was not anticipated by a prior apparatus capable of use in practicing the process where the apparatus was not actually so used. Furthermore, the Examiner has not responded to the applicant's previous observation that the stale air exhausted in Pardoel et al. is exhausted through side walls of a space, not through an upper boundary of the space. Thus, even aside from the issue of the structure of Pardoel et al. being capable of performing the process of claim 15, Pardoel et al. does not disclose the step of claim 15 of exhausting through at least one opening in the upper boundary. Then, with respect to the proposition that the structure of Pardoel et al. is capable of performing the process of claim 15, the applicant points out that the structure of Pardoel et al. is not capable of performing the process of claim 15 because that

Serial No. 10/688,993
Docket No. FMG.002

structure exhausts through the side walls.

In view of the foregoing, the applicant submits that all the claims are allowable and that the application is in condition for allowance. An early notice to that effect is respectfully requested.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0562.

Respectfully submitted,

Date: 12-14-05

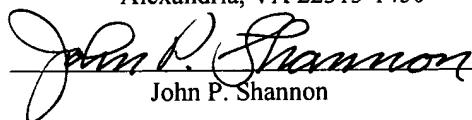

John P. Shannon
Registration No. 29,276

Merek, Blackmon & Voorhees, LLC
673 South Washington Street
Alexandria, VA 22314
(703) 684-5633
Customer No. 48234

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450 on 12-14-05.


John P. Shannon